

BELOKONSKI, Il. d-r

The effect of small doses of ionizing radiation on the human organism.  
Prir i znanie 13 no.5:5-7 My '60. (EEAI 9:11)  
(Radiation)

RUSEV, G.; RADEV, T.; BELOKONSKI, I.; PETKOV, B.

Radiosensitivity of guinea pigs with extremely low catalase activity. Radiobiologiya 1 no.4:555-558 '61.

(MIRA 17:2)

1. Nauchno-issledovatel'skiy voyennoy demitsinskiy institut  
i Institut sravnitel'noy patologii Bolgarskoy akademii nauk.

BELOKONSKI, Il., d-r

Distribution of incorporated radioactive substances in an  
organism, and their harmful effect. Biol i khim 6 no. 3:18-23  
'63.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204400005-6

BELOKONSKI, IL., dr.

Changes in certain food products under the action of ionizing  
radiation. Prir. i znanie 16 no.4:8-10 Ap'63

L 4353-66

ACC NR: AP5028779

SOURCE CODE: BU/0011/65/018/002/0165/0168

AUTHOR: Vulchanov, V. H.; Vassilev, V. N.; Obretenova, K.; Belokonski, I. B  
B

ORG: Institute of Microbiology, Bulgarian Academy of Sciences; Tuberculosis Research Institute at the Ministry of Health and Social Welfare

TITLE: Auto-immunization and auto-allergization in preliminary x-ray treated guinea pigs infected with tuberculosis

SOURCE: Bulgarska akademiya na naukite, v. 18, no. 2, 1965, 165-168

TOPIC TAGS: immunology, experiment animal, biochemistry, immunization, radiology, radiation biologic effect, tuberculosis

ABSTRACT: [English article] It was established in previous investigations by the authors (Izv. Mikrobiol. in-t. BAN, 15, 1963, 115; Immunitets- u. Allergieforsch., 125, 1963, 207) that complement-fixing leuco-, pulmo-, and cerebro-antibodies could be detected in the serum of some tuberculous patients with chronic empyema. Comparing this with the findings of other researchers who found leucogglutins in patients with splenic tuberculosis (see, e.g., S. Moeschlin, Acta Scand. Suppl., 312, 1956, 518) and pulmoantibodies in patients with cavernous lung tuberculosis (A. T. Hennes et al., Amer. J. Resp. Dis., 83, 1961, 354), the authors stressed the role of tuberculosis infection in the induction of a 'polyspecific' auto-immunization process in

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ACC NR: AP5028779

the affected organism. Experimental studies, part of which are the subject of the present communication, were performed with the aim of further elucidating this problem. As has been shown in the guinea pig infection model, it seems that mycobacterium tuberculosis humanum, strain H<sub>37</sub>Rv, plays a significant role in inducing auto-antigenicity of a 'polyspecific' character. The pre-treatment with 400 r irradiation, producing conditions for a wider spread and deeper penetration of the infection, increases the possibilities of inducing auto-antigenicity and accelerates the autoimmunization process. Irradiation causes inhibition (up to the 30th day) of the delayed type of hypersensitivity in animals infected with tuberculosis. In some cases only auto-sensitization with respect to extracts of lymph node, brain, and peritoneal leucocytes is established on the 30th day or later after the infection. The induction of auto-antigenicity in the concrete case might be ascribed rather to the infection's direct action (the effect of irradiation being added to it) upon the tissues than to changes in the immunological competence of the antibody-forming cells caused by the radiation. The work was presented by A. Toschkoff, Corresponding Member of BAN, 30 Sep 64. Orig. art. has: 2 tables. [JPRS]

SUB CODE: LS / SUBM DATE: 30Sep64 / ORIG REF: 002 / OTH REF: 005

MC  
Card 2/2

RUMANIA

BELOKONSKI, I.; RUSEV, G.; KRAEV, D.; SEICOV, N.; and POPOV, P. "Affiliations not shown", (Peoples Republic of Bulgaria)

"Early Adynamia in the Radiation Sickness"

Bucharest, Revista Sanitara Militara, Vol 16, Special No., 1965; pp 427-437

Abstract: Studies on 500 rats, 2000 mice, 50 dogs: 450, 900, 1800, 5000 r; detail study of muscular weakness following radiation; conditioned reflex response and other central nervous system functions; spontaneous motor activity; muscular response to electrical stimulation, metabolism of potassium, sodium and calcium in the muscles; actomyosin contractility. 13 diagrams.

1/1

LADUR, M., zasluzhennyy deyatel' iskusstv RSFSR; GONCHAROV, A.; khudozhnik;  
VAKS, I., dots.; GONCHAROV, M., inzh.; BORUSHKO, N., khudozhnik-  
arkhitektor; PAKHOMOV, V., student; BELOKOPYTOV, A., student

Beauty in labor. Tekh.mol. 28 no.7:2-4 '60. (MIRA 13:8)

1. Leningradskoye vyssheye khudozhestvenno-promyshlennoye uchi-  
lishche (for Vaks, Pakhomov, Belokopytov).  
(Aesthetics) (Color--Psychology)



BELOPITOV, A., starchy inzhener-ingenant

The problem of reliability of the  
1. version, no. 13. By 194.

1. 194.  
1. 194.

BELOKOPYTOV, A.M. (Voronezh)

Geography teacher builds up a photographic index. Geog. v  
shkole 25 no.1:42-44 Ja-F '62. (MIRA 15:1)

(Geography--Audio-visual aids)

BELOKOPYTOV, B.

"Prospects of the Application of Helicopters in Civil Aviation,"  
by B. Belokopytov, Chief of the Flying Division of the Adminis-  
tration of Aviation of Special Applications and Aerial Surveys,  
GUGVF, Grazhdanskaya Aviatsiya, No 2, Feb 55, pp 23-24 ✓

Mention is made in the article of the special adaptability of the helicopter to geological prospecting and gravimetric surveying, where uniform and symmetrical coverage of a region by control points is required. At each point it is necessary to land personnel and gravimetric instruments. Where it is impossible to land due to the terrain, the operators disembark and embark while the helicopter hovers at an altitude of 0.5 to 1 m.

A photograph [Photo No 204449] in the article shows, according to the caption, a helicopter which has landed at a control point, and operators of gravimeters beginning their work.

SUM. I287

BELOKOPYTOV, B.

Prospects for using helicopters in civil aviation. Grazhd.av.  
12 no.2:23-24 F '55. (MIRA 16:1)

1. Nachal'nik letnogo otдела Upravleniya aviatsii spetsial'nogo  
primeneniya i vozdushnykh s<sup>ty</sup> ~~ymak~~ Glavnogo upravleniya  
Grazhdanskogo vozdushnogo flota pri Sovete Ministrov SSSR.  
(Helicopters) (Aeronautics, Commercial)

BELOKOPYTOV, I. D.

PA 54/49T63

USSR/Fuel  
Coal  
Peat

Jul 49

"New Literature on Fuel Economy," 1 p

"Za Ekonomiyu Topliva" No 7

Includes I. D. Belokopytov's book, "Technical Qualities of Peat Fuel and Their Determination," V. V. Petrovichev's book, "Industrial Furnaces Using Coal Dust," and A. K. Slavyanskiy's article, "The Problem of Utilizing Wood as Fuel."

54/49T63

BELOKOPYTOV, I. Ye.

Separate Publications. ( by personnel of Cen. Peat Exp. Station, Min. of Agri. USSR)

Organizatsiya Dobyvaniya Torfyanykh Udobreniy v Sovkhozakh i Kolkhozakh  
(Organizing the Extraction of Peat Fertilizers on Sovkhozes and Kolkhozes).  
by Rozenov, N. S. and Belokopytov, I. Ye. (1932 or later)

SO: Botanicheskiy Zhurnal, Vol XXXV, No 1, pp 100-110,  
Jan-Feb 1950, Russian bimonthly, Moscow/Leningrad (U-1411,  
12 Feb 1954)

BELCKOPYTOVA, I. YE.

Works of the Central Peat Experimental Station, (Min. of Agri. RSFSR),  
Volume 1, 1936, 137 pages, [REDACTED] The Peat Bogs of the Far North and  
the Asiatic Part of the USSR.

Editors and authors of "Forward" - I. Ye. Belokopytova and M. I. Neyshtadt.

SO: Botanicheskiy Zhurnal, Vol XXXV, No 1, pp 100-110,  
Jan-Feb 1950, Russian bimo per, Moscow/Leningrad (U-5011,  
12 Feb 1954)

3812. TREND OF QUALITATIVE INDICES FOR PEAT FUEL DURING 1940-1948.  
Belokhentyev, I.B. (Torfyannaya Promyshlennost, 1949, (7)  
11-25). Tables show calorific values etc. of fuel from eleven  
different fields in the U.S.S.R. (L).

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204400005-6



F.A.  
T.

Ohl. RACI...  
D...  
J.S. and ... M.A. (Term...)  
10-12).

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204400005-6

BELOKOPYTOV, I. E.

Chemical Abst.  
Vol. 48 No. 8  
Apr. 25, 1954  
Fuels and Carbonization Products

Electric properties of peat. N. N. Stepanenko, I. E.  
Belokopytov, and N. A. Bogomolov. *Colloid J. (U.S.S.R.)*  
14, 507-9 (1952) (Engl. translation). See *C.A.* 47, 3543b.  
H. L. M.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204400005-6

GORYACHKIN, V.G., professor; BELOKOPYTOV, I.Ye., redakter, LARIONOV, G.Ye., redakter.

[Principles of peat production technology] Osnovy tekhnologii torfianogo proizvodstva. Moskva, Gos. energeticheskoe izd-vo, 1953. 199 p.  
(Peat industry) (MLRA 7:7)

DUNAYEV, B.K.; BELOKOPYTOV, I.Ye., redaktor.

[Geological and hydrogeological research in peat deposits] Geologicheskie i gidrogeologicheskie izyskaniia pri issledovanii torfianykh mestorozhdenii. Moskva, Gos. energ. izd-vo, 1954. 84 p.  
(Geology, Economic) (Peat) (MLRA 7:7)

БЕЛОКОПЫТОВ 1.72.

Вкл. БЕЛОКОПЫТОВ АЛЕКС. БЕЛОКОПЫТОВ, Л.Б. and БЕРЕЗНЕВИЧ, В.В.  
FV (Техн. Инж. (Техн. Инж., Москва), 1955, (8), 9, 10). Illustrated  
descriptions are given of types of auger used for sampling peat in the ground,  
in the dried state and in the laboratory. (L).

①

БЕЛОРУЧЬЕ, Л.Б.

✓ 33. REEXAMINATION OF SAMPLING OF LUMP PEAT AT UNLOADING PLANTS.  
Belokurov, L.B. and Karamovich, V.V. (Part. from. (Part Ind., Moscow),  
1958, 117, 19-21). An illustrated description is given of a device  
incorporating a box measuring 450 by 450 by 160 mm deep which is interposed by  
means of a swinging arm below the outlet of a belt conveyor. (L).

①

BELOKOPYTOV, I.Ye.

Milled peat qualitative indexes and means for the improvement of peat  
quality. Terf.prem.33 no.5:9-12 '56. (MIRA 9:9)

1.Nachal'mik Gikterfa.  
(Peat)

ILLEGIBLE



~~BELOKOPYTOV, Ignatij Yulianovich~~; BERESNEVICH, Vladislav Vladislavovich;  
VARENISOV, V.S., redaktor; MEDVEDEV, L.Ye., tekhnicheskiiy redaktor

[Mechanization of selection and separation of samples of  
peat fuel] Mekhanizatsiya otbora i razdelki prob torfianogo  
topliva. Moskva, Gos. energ. izd-vo, 1957. 140 p. (MLBA 10:5)  
(Peat--Analysis)

104-3-5/45

AUTHOR: Belokopytov, I. Ye., Candidate of Agric. Sciences and  
Beresnevich V.V., Engineer.

TITLE: Mechanisation of the taking of primary samples of peat fuel  
in delivery lines. (Mekhanizatsiya otbora pervichnykh prob  
torfyanogo topliva na toplivopodachakh)

PERIODICAL: "Elektricheskiye Stantsii" (Power Stations), 1957,  
Vol: 28, No.3, pp. 15 - 19 (U.S.S.R.)

ABSTRACT: In recent years power stations have begun to use mechan-  
ical samples of various designs depending on the method of  
fuel supplies. One of the simplest samplers that takes samples  
of milled peat directly from the conveyor belt is the rotating  
mechanical sampler designed by Engineer G.D. Baskakov installed  
at Kostroma power station. This equipment is described and  
illustrated with a sketch. The conical rotor bears scoops  
which move in the opposite direction to the motion of the con-  
veyor belt carrying the peat, cut into the layer of peat on  
the belt over its entire width and take portions from all the  
layers of peat. The samples then pass from the inside of the  
drum into a sample pipe. The sampler is driven by belt drive  
from the free side of the conveyor belt at a speed of 2 rpm.  
Test results using this sampler are tabulated. It is evident  
from the results that samples of this kind can be used to take

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104-3-5/45

Mechanisation of the taking of primary samples of peat fuel in fuel delivery lines.

samples of milled peat from conveyor belts travelling at speeds up to 0.75 m/sec and with a belt width of 0.7 m.

Another sampler for milled peat of the type described by F.V. Selivonchik in "Elektricheskiye Stantsii", 1954, No.4, pp. 13 - 15 has been installed at Bryansk and test results are given. It was decided to mechanise fully the process of sampling with simultaneous splitting and quartering of samples accumulated in the bunkers during a shift. The authors accordingly developed a sample splitting installation which is illustrated by a sketch. A similar installation is installed in another station and is being operated experimentally. A further sampling device which has been installed at Shatura is illustrated and described. It is very simple and reliable and worked very well during the period of testing and experimental operation. Thus, at the present time there are clear possibilities for the mechanisation of sampling of milled peat on power station belt conveyors. The problem of mechanised sampling of lump peat is much harder to solve. However, a sampler which is described and illustrated has been installed at Sverdlovsk in 1952. A special feature of this installation is that it must be installed at a place where the conveyor

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104-3-5/45

Mechanisation of the taking of primary samples of peat fuel in fuel delivery lines. (Cont.)

belt is flat. The mechanism is driven from an additional drum installed on the lower free side of the conveyor belt. The results of tests made on the installation in 1955 are tabulated and if suitable allowances are made there is practically no difference between the results of hand and mechanical sampling and it follows that the sampler causes no important changes in the fractional composition of the peat. The sampler is simple to manufacture and operate and can be installed almost anywhere on the fuel delivery line and, therefore, its further development and widespread introduction is important. In conclusion it should be noted that the direction of development of mechanisation of sampling and experience of operating existing sampling installations show that it will be quite possible to solve the problem of complex sampling of peat fuel in power stations with belt conveyors.

There are 4 figures and 1 Slavic reference.

AVAILABLE: Library of Congress

Card 3/3

ILLEGIBLE

ILLEGIBLE

Г. Л. КОПЫТОВ

БЕЛОКОПЫТОВ, И. Я.

Analysis of the quality indices for block peat. Torf.prom. 34  
no.6:4-7 '57. (MIRA 10:12)

1. Giktorf.

(Peat)

BELOKOPYTOV, I.Ye.; BERESNEVICH, V.V.

2-IL-1 apparatus from the State Peat Inspection Office for the rapid determination of the moisture content of peat fuel. Torf.prom. 35 no.2:19-23 '58. (MIRA 11:5)

1. Gosudarstvennaya inspeksiya po kachestvu torfa Ministerstva elektrostantsiy.  
(Peat--Analysis) (Moisture)



**AUTHOR:** Belokopytov, I.Ye., Engineer 1958 4-8/49

**TITLE:** An Improvement in the Quality of Fuel Peat in Molded (povysheniye kachestva torfyannogo topliva "mushkaya zashchita")

**PERIODICAL:** Standartizatsiya, 1958, Nr 3, pp 28 - 31 (USSR)

**ABSTRACT:** Though there are state standards for the tests (heat of burning, preparation of samples for analysis, etc.) of peat, there is only one standard requirement, "GOST 5401-54" specifying peat for a definite application (gas generators). The author stresses the necessity of standards specifying the properties of peat used for different purposes. This must be developed by the Gosudarstvennaya inspektsiya po kachestvu torfa (Giktorfi) (State Inspection of the Quality of Peat). He points out that peat extracted by the milling method is cheaper than lump peat (49-90 rubles per ton vs. 96-141 rubles) and can be used directly as fuel and for the production of peat briquettes. The ash content of peat rarely exceeds 10%, but the humidity varies, and in past years it has increased above the former prevailing 47 to 45% level. Giktorfi and the Molded Peat Institute (Mushkaya Zashchita Peat Institute) have developed new crushers, samplers and other devices, and started the mechanization of the whole process of evaluating the quality of peat. The "BMD-1", "MMMD-1" and "IMG-1"

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1968 3.8/12  
An Improvement in the Quality of Fuel Peat is Needed (Povysheniye kachestva torfyanogo topliva - nazrevshaya zadacha)

.. Giktorf peat crushers are shown in photographs. The sampler devices used at state area power plants (Shaturskaya GRES, Bryansk GRES) are briefly described. The author stresses that peat is very unstable in quality and can be used commercially only after an accurate quality specification by standards. There are 3 photographs, 1 graph and 1 table.

ASSOCIATION: Gosudarstvennaya inspeksiya po kachestvu torfa Moskovskogo oblastnogo sovmarkhoza (State Inspection for Peat Quality of the Moscow Oblast Sovnarkhoz)

Card 2/2

1. Peat--Standards 2. Standardization

BELOKOPYTOV, I. Ye.

ANTONOV, V. Ya., dotsent, kand. tekhn. nauk; BELOVISOV, I. D., dotsent, kand. tekhn. nauk; BELOKOPYTOV, I. Ye., dotsent, kand. sel'kokhoz. nauk; GORYACHKIN, V. G., prof., doktor. tekhn. nauk; ZYUZIN, V. A., starshiy prepodavatel'; SEMENSKIY, Ye. P., dotsent, kand. tekhn. nauk; CHULYUKOV, M. A., dotsent, kand. tekhn. nauk; VARMINTSOV, V. S., dotsent, kand. tekhn. nauk, red.; BORUNOV, N. I., tekhn. red.

[General course in the technology of peat winning] Obshchii kurs tekhnologii torfodobyvaniia. Moskva, Gos. energ. izd-vo, 1959. 339 p. (MIRA 13:2)

1. Chlen-korrespondent AN BSSR (for Goryachkin).  
(Peat industry)

BELOKOPYTOV, I.Ye., kand.sel'skokhozyaystvennykh nauk

More peat for the agriculture of the non-Chernozem zone.  
Torf.prom. 36 no.8:1-4 '59. (MIRA 13:3)  
(Peat) (Agriculture)

BELOKOPYTOV, I.Ye., inzh.

M.V. Lomonosov about bogs and peat. Torf. prom. 37 no. 3:25-27  
'60. (MIRA 14:1)

(Peat bogs)  
(Lomonosov, Mikhail Vasil'evich, 1711-1765)

BELOKOPITOV, I.Ye.

On the origin of the word "peat". Torf.prom. 37 no.6:32-33 '60.  
(MIRA 13:9)

(Peat)

BELOKOPYTOV, I.Ye.; BERESNOVICH, V.V.; BERSHADSKIY, L.S.; VEYTS, L.F.;  
ZHUKOV, A.G.; IVASHECHKIN, N.V.; KUZHMAR, G.I.; LASHNEV, I.A.;  
MURASHOV, F.G.; NIKODIMOV, P.I.; PYATAKOV, L.V.; SAMSONOV, N.N.;  
SEMENSKIY, Ye.P.; SINITSYN, N.A.; SOLOPOV, S.G.; STRUKOV, B.I.;  
STEBIKHOV, M.I.; TSUPROV, S.A.; CHERNOV, A.A.; CHULYUKOV, M.A.

Ivan Aleksandrovich Monakin. Torf. prom. 37 no. 3:37 '60.  
(MIRA 14:1)

(Monakin, Ivan Aleksandrovich, 1908-1960)

ABKHAZI, V.I.; ANTONOV, V.Ya.; BELOKOPYTOV, I.Ye.; VARETSOV, V.S.; GORYACHKIN, /  
V.G.; ZYUZIN, V.A.; KRYUKOV, M.N.; KUZMAN, G.I.; OZEROV, B.N.;  
RIVKINA, Kh.I.; SEMENSKIY, Ye.P.; SOKOLOV, A.A.; SOLOPOV, S.G.; STRELKOV,  
S.S.; TYUREMNOV, S.N.; CHULYUKOV, M.A.

Sergei Alekseevich Sidiakin. Torf.prom. 38 no.2:40 '61. (MIRA 14:3)  
(Sidiakin, Sergei Alekseevich, 1897-1960)



BOGROV, V. A.; GUSEV, I. E.; KURKOVA, N. S.; M. PROKHIN, A. A.; KRYZHEV, V. A.;  
V. A.; FILIKOV, V. A.; KARTASOVA, I. I.; KRYZHEV, V. A.

Temperature condition: of a screw pump (4000 rpm) and a fan-  
driven bottom blowing. Mol. & para-cryst. at 1000°C.  $\alpha$ -  
 $\beta$  at 100°C.

L 3114-18 BWT(n)/T LRP(c) D1

ACC NR: AP6019242

(A)

SOURCE CODE: UR/0306/00/002/003/0373/0377

AUTHOR: Chizmadzhev, Yu. A.; Chirkov, Yu. G.; Belokopytov, I. P.

ORG: Institute of Electrochemistry, Academy of Sciences, SSSR (Institut elektrokhimii Akademii nauk SSSR); Scientific Research Physicochemical Institute im. L. Ya. Karpov, Moscow (Nauchno-issledovatel'skiy fiziko-khimicheskiy institut)

TITLE: Current generation in electrodes with porous surfaces

SOURCE: Elektrokhiimiya, v. 2, no. 3, 1966, 373-377

TOPIC TAGS: electrode, electric current, electrochemistry, surface condition, porous material, polarization, electric potential, hydrogen, porous metal, porosity

ABSTRACT: Partially submerged electrodes with porous surfaces are investigated. Some parameters considered in deriving the polarization characteristics were:  $\Delta_1$ --thickness of the porous layer;  $\Delta$ --thickness of the electrolyte film of length L; the dimensionless polarization  $\phi = e\phi/2kT$ , where  $e$ =electronic charge,  $k$ =Boltzman constant and  $T$ =absolute temperature; and the dimensionless concentration  $\bar{c}_s = c_s/c_0$  where  $c_s$ =the concentration of  $H_2$  on the surface of the electrode and  $c_0$ =concentration of  $H_2$  on the surface layer. The current density for electrochemical changes inside the porous layer was given by

$$i = i_0[\gamma \bar{c} e^{\phi} - e^{-\phi}],$$

UDC: 541.13

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ACC NR: AP6019242

where  $i_0$ =current interchange on a smooth surface. Boundary conditions were established for the above equation and parametric curves were shown for  $c_s$  as a function of  $\bar{\phi}$ . The values for the current  $I$  were determined from the parameter  $\gamma=(\Delta gS/c)^{1/2}$  where  $\epsilon=2FDC_0/\Delta i_0$ - another parameter which depends on the boundary conditions,  $g$ =surface porosity,  $F$ =Faraday constant and  $S$ =specific surface reactivity. Curves are given for  $I=f(S)$  for different values of  $\bar{\phi}_0$  and for  $I=f(\bar{\phi}_0)$ , comparing porous with smooth surfaces. In the region of low polarization ( $\bar{\phi}_0 \approx 4$ ) the porous electrode had a current generating ability about 10 times that of the smooth electrode. Orig. art. has: 4 figures, 7 formulas.

SUB CODE; 07,20

SUBM DATE: 29Jul65/

ORIG REF: 003/

OTH REF: 001

Card 2/2/MLP

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204400005-6

MAYOROV, D.M.; MINIBAYEV, D.Y.; ROYABINOVA, M.S.; S.M. P. 1964.

Production of technical lauryl and cetyl alcohols from  
petroleum products. Khim. prikl. khim. 37 n. 7:1340-1342  
57 164. (MIRA 1444)

BELOKONSKIY Il.

Changes in subcutaneous tissue clearance in aminoethylthiuronium-protected and unprotected rats irradiated with roentgen rays.  
Suvrem med., Sofia no.1:91-97 '61.

1. Nauchnoizsledovatel'ski voennomeditsinski institut. (Nachalnik L. IAnchev.)

(RADIATION EFFECTS exper) (THIOUREA re cpds)  
(CONNECTIVE TISSUE radiation eff)

49-3-16/16

AUTHORS: Belokopytov, M.M., Devitsin, V.M. and Lapin, M.I.

TITLE: All Union Inter-Departmental Conference on aerial photography. (Vsesoyuznoye mezhdudedomstvennoye soveshchaniye po aeros"emke).

PERIODICAL: "Izvestiya Akademii Nauk, Seriya Geofizicheskaya" (Bulletin of the Ac.Sc., Geophysics Series), 1957, No.3, pp.415-416 (U.S.S.R.)

ABSTRACT: This conference was convened by the Aerial Methods Laboratory, Ac.Sc., U.S.S.R. (Laboratoriya Aerometodov Akademii Nauk SSSR) and was held between November 25 and December 1, 1956 in Leningrad. Numerous organisations of the Ac.Sc., Ministries and Departments participated. Ninety papers were discussed, twenty of which related to aerogeophysics. There were plenary meetings and sectional meetings on a number of subjects. The papers on aerial photography and aerophotogrammetry were presented at the plenary meetings, these included the following: "Aerogeophysical methods and the position relating to improving their effectiveness in geological sounding and prospecting work" by A. A. Logachev (LGI); "Tentative plan for aeromagnetic prospecting and geological prospecting work between 1956 and 1960 and further improvement and development of the aeromagnetic method" by V.Ye Nikitskiy

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49-3-16/16

All Union Inter-Departmental Conference on aerial photography.(Cont.)

(Glavgeofizika); "Present state and further development of aerogeophysical methods in the oil industry" by V. L. Sokolov (VNIIGeofizika). V.Ye. Nikitskiy and V. L. Sokolov stated that at present about 12 000 000 km<sup>2</sup> have been dealt with by aeromagnetic methods and during the present Five Year Plan period aeromagnetic mapping of the entire mainland of the U.S.S.R. at a scale of 1:1 000 000 will be completed and the mapping at scales of 1:200 000, 1:100 000, 1:50 000 and 1:25 000 will be continued. In accordance with the programme of the International Geophysical Year aeromagnetic mapping at a scale of 1:2 500 000 will be carried out of the Okhotsk Sea and for doing this work it is scheduled to increase the number of available aeromagnetometers to sixty in 1960 and to improve their design. Series manufacture of the aeromagnetometer **A3-13** will begin in 1958; it will be supplemented with a variational station and calculating (computer?) apparatus for evaluating the magnetograms. Series production by 1960 is scheduled of nuclear resonance aeromagnetometers with a zero point of 0.1  $\gamma$ /hr and an accuracy of  $\pm 1\gamma$  and of a magneto aerogradient meter.

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49-3-16/16

All Union Inter-Departmental Conference on aerial photography. (Cont.)

Much attention was paid to field aeromagnetic techniques. V. M. Rymanov (VNIIGeofizika), N. D. Palitsyn (Laboratory of Aerial Methods, Ac.Sc., U.S.S.R.), P. S. Cherepanov (VNIIGeofizika), S. V. Knorozov (Directorate of Aerial Photography GUGVF), Ya. G. Vorob'ev (Western Geophysical Trust), V. L. Sokolov and others have emphasized that the visual method of surveying is highly inaccurate and unsatisfactory owing to large longitudinal as well as transverse deflections of the aircraft from a given course and owing to the practical impossibility of verifying the accuracy of plotting the location of the aircraft by the navigator. Visual surveying is particularly unsatisfactory where landmarks are scarce (deserts, sea) and application of radio geodesy is necessary in these cases. According to V. L. Sokolov, VNIIGeofizika is working at present on introducing radio geodesy. V. Ye. Nikitskiy stated that Glavgeofizika and Glavnftegeofizika proposed introduction in 1957 of aerial photo-surveying. G. V. Romanovskiy (NII VTS SA), P. S. Cherepanov, V. D. Sokolov and others proposed supplementing topographical maps, particularly in sparsely inhabited regions, with photographic plans in

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All Union Inter-Departmental Conference on aerial photography. (Cont.)

isometric projection and particular importance was attached to photographic plans (maps) of the winter landscape. S. V. Knorozov, M. D. Konshin (TsNIIGAIK) and others mentioned that existing aeronavigational instruments and altitude meters do not satisfy requirements to be met by such instruments. Some of the speakers (P. A. Kukin - VNIIGeofizika, O. N. Solov'ev, Ye. G. Vorob'ev) dealt with the problem of surveying aeromagnetic observations. The role of large scale ground and aerial mapping was also discussed. V. Ye. Nikitskiy reported that Glavgeofizika proposes to develop during the next two to three years a method of aeromagnetic mapping at scales of 1:50 000 and 1:25 000. According to V. Ye. Nikitskiy, VSEGEI (with the participation of NIIZMIR and Glavgeofizika) will work out in 1957 unified technical specifications for compiling and publishing magnetic maps at scales of 1:1 000 000 and 1:200 000 and a technique of utilisation of aeromagnetic data in compiling and preparing for publication of geological maps. Geological maps at these scales are to be accompanied by appropriate maps of the magnetic field.

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All Union Inter-Departmental Conference on aerial photography. (Cont.)

V. P. Orlov demonstrated maps of the  $T$  and  $T_a$  fields of a scale of 1:2 500 000 compiled by NIIZMIR<sup>a</sup> on the basis of data of absolute measurements and of relative aeromagnetic measurements up to and including 1954.

In numerous papers the problem was discussed of the state and further development of techniques of interpretation of aeromagnetic observations. A. A. Logachev and other speakers emphasized the important achievements of Soviet scientists in this field. Logachev considers as the most promising those methods of quantitative interpretation of magnetic anomalies which are based on utilising the higher derivatives of the potential. Logachev and Nikitskiy evaluated the average accuracy of calculation of depths at 15 to 20% but numerous other speakers doubted whether this high accuracy is really achieved.

V. Ye. Nikitskiy, Ya. G. Vorob'ev, O. N. Solov'ev, P. A. Kukin and others elucidated the problems of the geological structure of various regions according to aeromagnetic prospecting data. Much attention was paid to the use of aerial methods for other types of geophysical

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All Union Inter-Departmental Conference on aerial photography. (Cont.)

prospecting: radio prospecting, gravimetric prospecting, electric prospecting, seismic prospecting. Except for magnetometric measurements, apparatus for measurement from aircraft is available only for radiometric measurements. In other methods aircraft are used only for transportation or delivery of the metering apparatus from one point of observation to another but even this has resulted in considerable economy and improved productivity of labour. Aerial methods proved very useful in line and point seismic sounding and in studying telluric currents. In 1956 VNIIGeofizika developed a method of field gravimetrical measurement for scales of 1:1 000 000 and 1:200 000 using helicopters. Aerial methods are particularly effective in regions with difficult access. Therefore, it is planned to use during the sixth Five Year Plan period aerial seismic and aerial electric prospecting in Western Siberia. Application of aerial methods necessitated the design of portable apparatus. Seismic prospecting and electric prospecting stations "CC-24 Savdenikov" and "VNIIGeofizika" have been tested with very good results and the question has been raised of constructing gravimetric and electric

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All Union Inter-Departmental Conference on aerial photography. (Cont.)

prospecting instruments for measuring during flight (V. L. Sokolov). M. D. Palitsyn, G.S. Smirnov (VIRG), A. N. Krasnov (VIRG), N. V. Kobets (Aerial Methods Laboratory Ac.Sc., U.S.S.R.) and Ye. E. Popova (Western Geophysical Trust) pointed out the necessity of using combined aerial methods. The task was assigned to VSEGEI of developing in 1957 techniques of combined geophysical investigations. In their papers, A. A. Logachev, V. L. Sokolov, S. V. Knorozov and others raised the question of organisation of aeromagnetic work and the economic effectiveness of such work. A resolution was adopted relating to the further development of aerial methods. Particularly, it was decided to create at the Aerial Methods Laboratory, Ac.Sc. an Inter-Departmental Commission for coordinating the scientific and practical activity of the individual establishments and to organise a photogrammetric society and a publication, to extend lecturing on aerial methods in teaching establishments, to adopt measures for more rapid introduction of radio-geodetic methods of evaluating aeromagnetic observations, to create a unified network covering the entire Soviet

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49-3-16/16

All Union Inter-Departmental Conference on aerial  
photography. (Cont.)

Union for aeromagnetic surveying, etc.

(This is a complete translation and not an abstract).

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Card 8/8

BELOKOPYTOV, N., podpolkovnik

Training of medalists in the Organization for Work and Defense.  
Voen. vest. 41 no.2:60-62 F '62. (MIRA 15:3)  
(Military sports)

118-58-3-5/21

**AUTHORS:** Ogloblin, L.A., and Belokopytov, V.A., Engineers

**TITLE:** The MVS-1 Railroad Car Unloading Machine for Loose Goods  
(Vagonorazgruzochnaya mashina dlya slezhivayushchikhsya  
sypuchikh грузов MVS-1)

**PERIODICAL:** Mekhanizatsiya Trudoyemkikh i Tyazhelykh Rabot, 1958, # 3,  
pp 16-17 (USSR)

**ABSTRACT:** Plants of the Ministry of Merchant Marine have constructed a railroad-freight-car unloading machine of the type MVS-1, designed by the TsPKB-4 of the Ministry and tested at the port of Osipenko. The machine mechanizes the unloading operation of freight, such as salt, superphosphate, etc, and considerably speeds up the unloading work, especially when combined with conveyors or grab cranes. Parameters of this machine are given as follows: working capacity - 65 tons per hour; dimensions - 4,850x1,730x1,965 mm; weight - 2,425 kg; conveyor extension - 2,500 mm and the width of the belt - 400 mm.

The unloading of a 60-ton freight car of salt by manual work requires 4 laborers and lasts from 4 to 5 hours. The use of the new machine cuts unloading time by "2 to 2.5

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118-58-3-5/21

The MVS-1 Railroad Car Unloading Machine for Loose Goods

times shorter" and only 2 laborers are needed. Labor efficiency will be raised by 3 times.  
There are 2 graphs.

AVAILABLE: Library of Congress

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S/844/62/000/000/045/129  
D287/D307

AUTHORS: Shub, D. M., Belokopytov, V. P. and Veselovskiy, V. I.

TITLE: Investigations of the radiolytic oxidation of organic substances sensitized with semiconductors

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd vo AN SSSR, 1962, 269-275

TEXT: Possible methods were investigated for increasing the yield of products during the radiolysis of organic substances, by using the system ZnO (suspension) - potassium oxalate (aqueous solution). The marked effect of heterogeneous sensitization can only be observed when the active surface of the sensitizer is sufficiently large. ZnO suspensions in aqueous potassium oxalate were therefore used, being continuously agitated during irradiation (300 rpm). Oxygen or nitrogen were led through the solution (40 ml/min) and the reaction temperature kept constant at 20°C. After irradiation the concentrations of  $K_2C_2O_4$  and  $H_2O_2$  were determined and compared with

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S/344/62/000/000/045, 123  
D287, D307

Investigations of the ...

data obtained for solutions not containing ZnO. The samples consisted of 50 ml of  $5.0 \times 10^{-5}$  N  $K_2C_2O_4$  solution (containing 1 g ZnO). Investigations on the relationship between the decomposition of  $K_2C_2O_4$  and the time of irradiation showed, in the presence of oxygen, that the rate of decomposition increased noticeably in the presence of ZnO. The yields also increased (4.7 mol/100 ev as against 2.8 mol/100 ev in homogeneous solutions) in the presence of ZnO but no marked discrepancies in the yield of  $H_2O_2$  could be recorded in the presence or absence of the suspension (2.4 and 2.2 respectively). The gaseous phase did not contain any  $CO_2$  and it is suggested that the  $CO_2$  is absorbed by the solution, increasing its pH. This increase could also be observed during irradiation for e.g. 5 hours. Decomposition yields were much higher when the experiments were carried out in a current of nitrogen; increased reaction rates were also recorded but no  $H_2O_2$  could be detected. A linear relationship

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Investigations of the ...

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D287/D307

exists between the decomposition of  $K_2C_2O_4$  and the quantity of  $4n0$  in the solution when the solution is irradiated for 20 min. The reaction is thus heterogeneous. Heterogeneous sensitization processes may, therefore, constitute one method for utilizing nuclear radiation more effectively in chemical reactions. There are 4 figures.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-Chemical Institute im. L. Ya. Karpov)

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S/844/02/000/000/031/129  
D244/D307

AUTHORS: Shub, D. M., Belokopytov, V. P. and Veselovskiy, V. I.

TITLE: Investigation of radiation-chemical processes using semiconductor electrodes

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN S.S.R., 1967, 188-192

TEXT: The system  $\text{Cu} \cdot \text{Cu}_2\text{O}/\text{KOH}$  solution was investigated to determine whether semiconductor electrodes transform the absorbed energy of irradiation into electronic excitation energy, as is currently believed. The solution (0.1 N KOH) containing the  $\text{Cu-Cu}_2\text{O}$ -electrode was irradiated with  $\gamma$  rays from a  $\text{Co}^{60}$  source with an activity of about 20,000 g-equiv. Ra, and with visible light (500 W lamp). Under the irradiation, a shift of the  $\text{Cu-Cu}_2\text{O}$ -electrode potential (in the region of 0.2 - 0.7 v) in the positive direction, was observed. A reverse effect was observed in the region of 0.8 -

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Investigation of radiation- ...

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044/0407

1.7 v. Detailed analysis of the results in the region of 0.1 - 1.7 v showed that irradiation promoted an electrochemical reaction on the electrode surface, which led to the oxidation of copper. Oxidation of the products of the oxidizing reaction and return of the electrode to its original state takes place by means of cathodic polarization. The oxidation reaction occurs as a result of absorption of the irradiation energy by  $\text{Cu}_2\text{O}$ . The results are interesting from the point of view of the elucidation of the possibility of reaching a stationary potential difference under the influence of ionizing radiation, since the  $\text{Cu-Cu}_2\text{O}$  electrode then assumes a sufficiently high and stable anodic potential. There are 4 figures.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. M. Kurnova (Physico-Chemical Institute im. L. Ya. Karpov)

Card 1/2

BELOKOPYTOV, V.S.; STREL'NIKOVA, N.P.

Central chemical laboratory of the Noril'sk Mining and Metallurgical Combine striving for a citation as a communist labor team. Zav.lab. 29 no.5:630-631 '63. (MIRA 16:5)

1. Ispolnyayushchiy obyazannosti nachal'nika TSentral'noy khimicheskoy laboratorii Noril'skogo gorno-metallurgicheskogo kombinata (for Belokopytov). 2. Rukovoditel' metodicheskoy gruppy TSentral'noy khimicheskoy laboratorii Noril'skogo gorno-metallurgicheskogo kombinata (for Strel'nikova).

(Noril'sk--Metallurgical laboratories)

1. NOVIK, A. A.: BELOKOPITOV, YA. G.
2. USSR (60C)
4. Dies (Metal-Working)
7. Cast hammer dies instead of forged ones. Vest.mash., 32, no. 12, 1952.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Incl.

BELOKOPYTOVA, A.P.; BLANDIN, Yu.V.; MAYOROV, D.M.; MUSHENKO, D.V.

Hydrogenation of the C<sub>10</sub> - C<sub>16</sub> acids over copper-chromia and  
zinc-chromia catalysts. Khim.i tekhn.topl.i masel 8 no.8:  
6-10 Ag '63. (MIRA 16:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimi-  
cheskikh protsessov.  
(Acids, Organic) (Hydrogenation) (Chromium catalysts)



YASTREBOVA, A.; BELOKOPYTOVA, M.

Working out the statistical report of a calculating machine  
station. Den. 1 kred. 16 no.11:69-70 N '58. (MIRA 11:12)  
(Kalinin Province--Banks and banking--Accounting)  
(Machine accounting)

BELOKOPYTOVA, M.A.

Developing poppy planting in the Alakul' Depression. Trudy Otd.  
geog. AN Kazakh. SSR no.10:180-185 '63. (MIRA 16:10)

SORVACHEV, K.F.; BELOKOPYTOVA, O.V.

Absorption of inorganic carbon from the environment by fishes and its participation in metabolism. Biokhimiia 25 no. 3:459-464 My-Je '60.  
(MIRA 14:4)

1. Isotope Laboratory, Faculty of Biology and Soil Sciences, State University, Moscow.  
(FISHES—PHYSIOLOGY) (CARBON—ISOTOPES) (ABSORPTION(PHYSIOLOGY))

KALINENKO, V.O.; BELOKOPYTOVA, O.V.; NIKOLAYEVA, G.G.

Bacteriogenetic formation of ferromanganese nodules in the  
Indian Ocean. Okeanologiya 2 no.6:1050-1059 '62.  
(MIRA 17:2)

1. Institut okeanologii AN SSSR.

MAYOROV, D.M.; BELOKOPYTOVA, S.P.

Hydrogenation of butyl esters of  $C_7 - C_9$  acids over copper-chromium and zinc-chromium catalysts. Zhur.prikl.khim. 35  
no.6:1343-1347 Je '62. (MIRA 15:7)  
(Esters) (Hydrogenation) (Catalysts)

L 47045-66 EWT(m)/EWP(j)/T IJP(c) RM  
ACC NR: AP6023405 (A)

SOURCE CODE: UR/0323/66/000/002/0078/0084 37 38

AUTHOR: Belokopytova, V. S. (Engineer); Kalinina, L. Ye. (Candidate of technical sciences);  
Pavlov, S. A. (Doctor of technical sciences, Professor)

ORG: [ Belokopytova; Kalinina ] All-Union Research Institute of Film Materials and Artificial  
Leather (Vsesoyuznyy nauchno-issledovatel'skiy institut plenochnykh materialov i iskusstvennoy  
kozh); [ Pavlov ] Moscow Technical Institute of Light Industry (Moskoviy tekhnologicheskiy  
institut legkoy promyshlennosti)

TITLE: Vulcanization of latex films for the production of polymer film materials by the ionic  
deposition method

SOURCE: IVUZ. Tekhnologiya legkoy promyshlennosti, no. 2, 1966, 78-84

TOPIC TAGS: synthetic material, vulcanization, gel

ABSTRACT: The present investigation is devoted to vulcanization of latex gels relative to the  
production of artificial leather. Ionic deposition was used to obtain latex gels. The carboxyl-  
containing latex SKN-40-1GP with 3% methacrylic acid was used as the main film-forming  
latex. Even though with ionic deposition the gels have an open structure, upon drying there is  
a tendency toward consolidation and formation of monolithic films. Therefore, the main task

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ACC NR: AP6023405

was to study the effect of structure-forming agents on the physicochemical indexes of film to establish the possibility of their vulcanization in the gel stage. Aqueous solutions of the hydrates of barium chloride, calcium chloride, magnesium chloride, chromic chlorides, and a mixture of barium chloride with chromic chlorides were tested as coagulators. It was found that latex SKN-40-1GP can be used to obtain artificial leather by the ionic deposition method provided vulcanizing agents are added to the latex compositions. The use of an aqueous solution of calcium chloride as a coagulator during film formation from this latex permits obtaining a coating with high physicochemical properties. During vulcanization of films of latex SKN-40-1GP by vulcanizing agents it is not advisable to increase the pH value above 7.5. Orig. art. has: 12 figures.

SUB CODE: 11/ SUBM DATE: 01Oct85/ ORIG REF: 009

Card 2/2 ULR

~~BRIGOROVA, Ye.V.~~; ZAYTSEVA, Ye.D.; IVANOVA, V.I.; KUCHERENKO, A.A.;  
OVCHINNIKOVA, L.N.; ODINOKOVA, Ye.A.; SHCHUKIN, N.M.;  
BRLOVA, K.F.; SOSKOVA, M.S.; DEMIN, P.M., red.; TYLKIN, M.N., red.;  
PULIN, L.I., tekhn. red.

[Economy of Tula Province; a statistical manual] Narodnoe khoziaistvo  
Tul'skoi oblasti; statisticheskii sbornik. [Tula] Tul'skoe knizhnoe  
izd-vo, 1958. 215 p. (MIRA 11:8)

1. Tula (Province). Statisticheskoye upravleniye.  
(Tula Province--Statistics)



BELOKOSKOV, V. I.

5(2)

PHASE I BOOK EXPLOITATION

SOV/2015

Akademiya nauk SSSR. Kol'skiy filial

Sbornik trudov po khimicheskoy tekhnologii mineral'nogo syr'ya Kol'skogo poluostrova, vyp. 1 (Collection of Works on Chemical Technology of Minerals of the Kola Peninsula, Nr 1) Moscow, Izd-vo AN SSSR, 1959. 221 p. 1,200 copies printed. Errata slip inserted.

Resp. Ed.: B.N. Melent'yev. Candidate of Geological and Mineralogical Sciences; Ed. of Publishing House: B.M. Markus; Tech. Ed.: E. Yu. Bleykh.

**PURPOSE:** The book is intended for scientists and technicians concerned with the extraction of tantalum, niobium, and rare metals.

**COVERAGE:** The book deals with a study of a complex treatment of the perovskite and sphene concentrates. The first three articles cover methods of extraction of titanium dioxide from the perovskite concentrate with side recovery of niobium, tantalum, and rare earths. The treatment of sphene concentrate is discussed in two articles. The separation of titanium, niobium, and tantalum is described in a separate article. The problem of selecting an efficient

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## Collection of Works on Chemical (Cont.)

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technological procedure is discussed in the last article. No personalities are mentioned. There are 31 references: 25 Soviet, 3 English, and 3 German.

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Collection of Works on Chemical (Cont.)

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- Motov, D.L. Study of the System  $\text{TiO}_2 - \text{H}_2\text{SO}_4 - (\text{NH}_4)_2\text{SO}_4 - \text{H}_2\text{O}$  by Dissolution in the Aqueous Solution Region 101
- Goroshchenko, Ya.G., and M.I. Andreyeva. Extraction of Niobium and Tantalum From Intermediate Products Obtained During the Processing of Loparite, Perovskite, and Sphene 129
- Goroshchenko, Ya.G., V.I. Belokoskov, Yu.A. Fomin, and D.L. Motov. The Problem of Selecting a Scheme for Industrial Process for the Production of Titanium Pigments From Perovskite Concentrate With Side Recovery of Rare Metals 148

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GOROSHCHENKO, Ya.G.; BELOKOSKOV, V.I.; FOMIN, Yu.A.; ANDREYEVA, M.I.

Laboratory experiments on the processing of perovskite concentrate by the titanyl sulfate method. Sbor.trudov po khim.tekhnol. min.syr'ia Kol'.poluos. no.1:5-24 '59. (MIRA 12:5)  
(Perovskite) (Titanyl sulfates)

GOROSHCHENKO, Ya.G.; BELOKOSKOV, V.I.; FOMIN, Yu.A.; ANDREYEVA, M.I.

Laboratory experiments on the processing of perovskite concentrate by fusion with ammonium sulfate and sulfuric acid.

Sbor.trudov po khim.tekhnol.min.syr'ia Kol'.polnos. no.1:25-39 '59. (MIRA 12:5)

(Perovskite) (Titanium alloys) (Ammonium sulfate)

GOROSHCHENKO, Ya.G.; BELOKOSKOV, V.I.; FOMIN, Yu.A.

Extended laboratory experiments on the fusion of perovskite  
concentrate with ammonium sulfate and sulfuric acid. Sbor.  
trudov po khim.tekhnol.min.syr'ia Kol'.poluos. no.1:40-66  
'59. (MIRA 12:5)  
(Perovskite) (Ammonium sulfate) (Sulfuric acid)

GOROSHCHENKO, Ya.G.; BELOKOSKOV, V.I.; FOMIN, Yu.A.; MOTOV, D.L.

Selecting the industrial layout for the production of titanium pigments from perovskite concentrate with a side recovery of rare metals. Sbor.trudov po khim.tekhnol.min.syr'ia Kol'.  
polnos. no.1:148-221 '59. (MIRA 12:5)  
(Titanium) (Rare earth metals)

GOROSHCHENKO, Ya.G.; MOTOV, D.L.; TROFIMOV, G.V.; BELOKOSKOV, V.I.

Testing a continuous method for the sulfuric acid decomposition of titanium-niobium concentrates. Izv.Kar.i Kol .fil.  
AN SSSR no.4:135-141 '59. (MIRA 13:5)

1. Laboratoriya khimicheskoy tekhnologii Kol'skogo filiala AN SSSR.

(Sulfuric acid) (Titanium-niobium ores)



1968

 18.3100 1087  
 10/17/78/013  
 RMD:JMS

AUTHOR: Belokoskov, V. I.

 TITLE: Study of titanium sulfate in the system  $\text{TiO}_2$ - $\text{H}_2\text{SO}_4$ - $\text{H}_2\text{O}$   
 by the solubility method in the temperature range 100-500°C

PERIODICAL: Zhurnal neorganicheskoy khimii, 1968, No. 12, 1444-1452

 TEXT: The knowledge of the crystallization ranges of titanium sulfates at high temperatures is important for studying the decomposition of titanium minerals (consumption of sulfuric acid, quality of the titanium produced). Since data from publications on titanium sulfates are highly contradictory, the author investigated the system  $\text{TiO}_2$ - $\text{SO}_3$ - $\text{H}_2\text{O}$  between 100 and 400°C.

 by the method of isothermal crystallization of the concentrated solutions. Oleum with a content of 40%  $\text{SO}_3$  and titanyl sulfate (41%  $\text{TiO}_2$  and 40.5%  $\text{SO}_3$ ) with two  $\text{H}_2\text{O}$  molecules as a partial anhydride. The solution contained from 0 to 90%  $\text{SO}_3$ . Crystallization was performed in

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3/28/71 10/26/70 8/1/71  
B. H. H. H.

Study of titanium sulfates in the

closed containers in the air thermostat. The establishment of equilibrium was determined by the constancy of the liquid phase. The phase condition of the residue containing fewest possible impurities of the liquid phase, was determined microscopically according to Arrhenius.  $TiO_2$  and  $SO_3$  were determined by gravimetric analysis. Ti traces calorimetrically with  $H_2O_2$ . Table 1 shows the compositions of saturated solutions at the points of double saturation determined by extrapolation of solubility curves.  $TiOSO_4 \cdot H_2O$  crystallizes in the form of small prismatic crystals at an  $SO_3$  concentration above 55%. At lower  $SO_3$  concentration,  $Ti_2(SO_4)_3 \cdot 8H_2O$  precipitates at first in the form of long needles, which recrystallize into the prismatic  $TiOSO_4 \cdot H_2O$  crystals.  $Ti_2(SO_4)_3 \cdot 8H_2O$  is easily soluble in water (about 200 g  $TiO_2/l$ ), but its rate of solution is low.  $Ti_2(SO_4)_3 \cdot 8H_2O$  crystallizes at an  $SO_3$  concentration of 43-45% in the form of small isotropic needles. It is destroyed by water, alcohol and other solvents.  $TiOSO_4 \cdot H_2SO_4 \cdot H_2O$  and  $Ti_2(SO_4)_3$  crystallize in small shapeless crystals which

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 2/20/66, 100, 100, 100, 100  
 5 10/5206

Study of titanium sulfates in the ...

cannot be distinguished from each other microscopically, but by the "residue method" (Fig. 5). The range of stability of  $\text{TiOSO}_4 \cdot \text{H}_2\text{SO}_4 \cdot \text{H}_2\text{O}$  narrows down to the interval between 100-125°C. At 150°C a new equilibrium phase  $\text{TiOSO}_4$  - anhydrous titanium sulfate appears along with three sulfates crystallizing at 125°C.  $\text{TiOSO}_4$  crystallizes rhombically with great double refraction and is difficultly soluble in water and dilute acids. At 175°C,  $\text{TiOSO}_4 \cdot \text{H}_2\text{O}$ ,  $\text{TiOSO}_4$  and  $\text{TiOSO}_4 \cdot \frac{1}{2} \text{H}_2\text{SO}_4 \cdot \frac{1}{2} \text{H}_2\text{O}$  crystallize as an equilibrium phase, and at 275 and 300°C only  $\text{TiOSO}_4$ . Through the formation of metastable phases  $\text{TiOSO}_4 \cdot 2\text{H}_2\text{O}$  and  $\text{TiOSO}_4 \cdot \text{H}_2\text{SO}_4 \cdot 2\text{H}_2\text{O}$ , equilibrium takes a long time to appear (1 month at 100°C). For the metastable crystals  $\text{TiOSO}_4 \cdot 2\text{H}_2\text{O}$  and  $\text{TiOSO}_4 \cdot \text{H}_2\text{SO}_4 \cdot 2\text{H}_2\text{O}$ , equilibrium set in at 125°C after 3 weeks, at 150°C after 2-3 weeks. Between 150 and 225°C, the crystallization of  $\text{TiOSO}_4$  proceeds over the metastable phase  $\text{TiOSO}_4 \cdot \text{H}_2\text{SO}_4 \cdot \text{H}_2\text{O}$ , which recrystallizes into  $\text{TiOSO}_4$  at 175°C in ten, at 300°C in four, and at 325°C

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S/078/61-006/006/008/013  
R110/B206

Study of titanium sulfates in the ...

in three days. The solubility of all sulfates described does not exceed 0.6% of that of  $TiO_2$ .  $TiOSO_4 \cdot H_2O$  and  $TiOSO_4$  are most insoluble. The solubility of  $TiOSO_4 \cdot H_2O$  and  $TiOSO_4 \cdot H_2SO_4 \cdot H_2O$  rises somewhat with a rise in temperature, the solubility of  $TiOSO_4$  drops. The solubility of  $Ti(SO_4)_2$  drops at first at a temperature rise from 100 to 175°C, but increases during a further rise. At 100-150°C  $TiOSO_4 \cdot H_2O$  has the greatest range of stability, at higher temperatures, the anhydrous  $TiSO_4$ . Between 100 and 130°C the following crystallize as equilibrium phases:  $TiOSO_4 \cdot H_2O$ ;  $TiOSO_4 \cdot H_2SO_4 \cdot 2H_2O$ ;  $TiOSO_4 \cdot H_2SO_4 \cdot H_2O$ ,  $TiOSO_4$  and  $Ti(SO_4)_2$ .  $TiOSO_4 \cdot 2H_2O$  was only formed between 100 and 150°C at high  $TiO_2$  concentrations. Its formation could not be determined at 175°C, since work was conducted with concentrations of 2-3%  $TiO_2$ . For  $SO_3$  concentrations of 51-53% the author could not determine any increase in solubility, nor any point of double saturation of  $TiOSO_4 \cdot H_2O$  and  $Ti_2O(SO_4)_3 \cdot 5H_2O$ ; neither were  $Ti(HSO_4)_4 \cdot 2.5H_2O$ ;

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S/078/62/007/002/008/019  
B119/B110

AUTHOR: Belokoskov, V. I.

TITLE: Study of the  $\text{TiO}_2 - \text{SO}_3 - \text{H}_2\text{O}$  system by the solubility method at 25, 50, and 75°C

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 2, 1962, 379 - 384

TEXT: The paper contributes to clear up the processes occurring when decomposition products of Ti minerals are treated with  $\text{H}_2\text{SO}_4$ .  $\text{H}_2\text{SO}_4$  of different concentrations was saturated with the solid phases existent at 100°C:  $\text{TiO}_2 \cdot x\text{H}_2\text{O}$ ,  $\text{TiOSO}_4 \cdot 2\text{H}_2\text{O}$ ,  $\text{TiOSO}_4 \cdot \text{H}_2\text{O}$ ,  $\text{TiOSO}_4 \cdot \text{H}_2\text{SO}_4 \cdot 2\text{H}_2\text{O}$ ,  $\text{TiOSO}_4 \cdot \text{H}_2\text{SO}_4 \cdot \text{H}_2\text{O}$ , and  $\text{Ti}(\text{SO}_4)_2$  at the temperatures mentioned and the resultant phase equilibria were studied. The establishment of the equilibria required 1 month at 50 and 75°C, 6 months at 25°C. The composition of the solid phases was analyzed microscopically according to the method of Schreinemakers. The relevant content of  $\text{TiO}_2$  and  $\text{SO}_3$  was determined gravimetrically in liquid as well as solid phase. At the three test

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Study of the

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B119/B110

temperatures the solubility isotherms show ranges corresponding to metastable and equilibrium states. The crystallizing of a solid phase could be ascertained only from solutions with a  $\text{SO}_3$  content lower than 45% ( $\text{TiO}_2 \cdot x\text{H}_2\text{O}$  and  $\text{TiOSO}_4 \cdot 2\text{H}_2\text{O}$ ). At higher  $\text{SO}_3$  concentrations no crystallization occurs, even after more than one year of standing at room temperature. Hydrates of titanyl sulfate show the best solubility in water. This increases with increasing temperature. The Ti solutions investigated are metastable in ranges of lower acidity. They are, however, stable for a long time (only after 5 - 7 days of standing at  $75^\circ\text{C}$  a noticeable hydrolysis occurs in the case of higher concentrated solutions). For the dressing of raw material to recover Ti it is recommended to work as to  $\text{SO}_3$  concentration in the crystallization range of the titanyl sulfate hydrates (below 45%  $\text{SO}_3$ ); the low acidity permits hydrolysis already at  $100 - 105^\circ\text{C}$ . Because of the large acid consumption, hydrates should be decomposed without formation of acid titanyl sulfate and titanium sulfate. There are 2 figures, 2 tables, and 6 references: 4 Soviet and 2 non-Soviet. The reference to the English language publication reads as follows: W. M. Thornton, Titanium Amer. Chem. Soc., Card 2/3

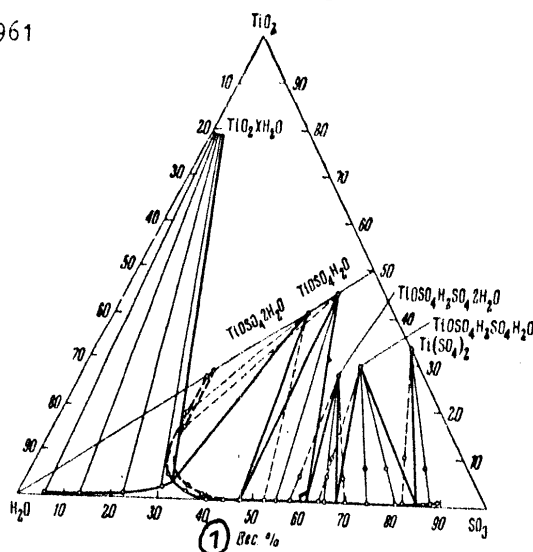
Study of the...

Monograph Series, New York, 1927.

SUBMITTED: January 28, 1961

Fig. 2. Solubility  
isotherm in the  
 $\text{TiO}_2 - \text{SO}_3 - \text{H}_2\text{O}$   
system at 25°C.

Legend: (1) percent  
by weight.



Card 3/3

BAZHENOV, Vladimir Ivanovich; KOBILYANSKIY, I.A., retsenzent;  
RYZHIKOVA, A.M., retsenzent; BELOKOSKOVA, N.A.,  
retsenzent; MINEYEVA, V.I., retsenzent; POKRYSHCHENKOVA,  
K.K., retsenzent GABOVA, D.M., red.

[Study of materials used in the clothing industry] Materialovedenie shveinogo proizvodstva. Moskva, Legkaya industriia, 1964. 374 p. (NIRA 18:4)



BOGDANOV, V.V.; BELOKOSKOVA, T.I.

Linear characteristics of the Kola Peninsula river system. Izv.  
Kar. i Kol'.fil.AN SSSR no.4:83-89 '58. (MIRA 12:5)

1. Otdel gidrologii i gidroenergetiki Kol'skogo filiala AN  
SSSR.

(Kola Peninsula--Rivers)

BELOKOTSKIY, A.I.; BOCHKAREV, V.P.

All-Union conference on problems of map making for purposes of engineering geology. Izv.AN Kazakh.SSR. Ser.geol. no.5:120-121 '62. (MIRA 15:12)  
(Engineering geology—Maps)

L 45307-66 EWT(1) GW

ACC NR: AR6016297

SOURCE CODE: UR/0269/66/000/001/0068/0069

AUTHOR: Bel'kovich, O. I.

TITLE: The mean length of a meteor train

SOURCE: Ref. zh. Astronomiya, Abs. 1.51.557

REF SOURCE: Sb. Meteorn. rasprostr. radiovoln. No. 2. Kazan', Kazansk. un-t, 1964, 135-140

TOPIC TAGS: meteor train, radio astronomy

ABSTRACT: The effective length of a meteor is the distance between points on the meteor train where the linear electron density is equal to the minimal registered density. This density depends on the parameters of the apparatus, the geometric conditions of radio wave diffusion, and the original radius of the ionized meteor train. The formula for the mean effective length of the meteor train is obtained by calculating the original radius. The author shows the relation of the mean length of the train to the wavelength of the apparatus used. P. B. [Translation of abstract]

SUB CODE: 03

Card 1/1

UDC: 523.531

AUTHOR: Belokovskiy, I.N., Engineer

SOV/110 59 5-22/25

TITLE: Discussion of Changing the Standard Scale of Power Transformer Ratings (Ob izmenenii standarta shkaly moshchnostey silovykh transformatorov)

PERIODICAL: Vestnik elektropromyshlennosti, 1959, No 5 pp 74-75 (USSR)

ABSTRACT: The existing scale of transformer ratings is not suitable for rural electrification. In particular the steps between ratings above 1000 kVA are too wide. Thus generators of 2000 and 2500 kVA have to have transformers of 3200 kVA and generators of 3750 and 4000 kVA have to have transformers of 5600 kVA. It is recommended that there should be a new scale of ratings including 1500, 2000, 2500, 4000, 4500, 5000 and 6000 kVA. For rural electrification it would also be convenient to have three-winding transformers of smaller ratings than at present, commencing with 1000 to 1800 kVA. The case is cited of rural hydro-electric stations with an output of the order of 1000 to 2500 kVA distributing power at 400 V and 10 kV and operating in parallel with a power system of 35 kV. At present it is necessary to instal

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SOV/110.59 5 22/25

**Discussion on Changing the Standard Scale of Power Transformer Ratings**

a special inter-connecting transformer and various advantages would accrue from the use of three-winding transformers in such cases. A number of standard ratings are recommended for use.

Card 2/2

BELOKRINITSKAYA, S. S.

"Principles of Arranging a German-Russian Dictionary of Words with Many Meanings for Machine Translation."

Theses - Conference on Machine Translations, 15-21 May 1958, Moscow.

BELOKRINITSKAYA, S S.

28(2)

12.2

PHASE I BOOK EXPLOITATION

SOV/3119

Akademiya nauk SSSR. Institut tekhnoy mekhaniki i vychislitel'noy tekhniki

Sbornik statey po mashinnoy perevodu (Collection of Articles on Machine Translation) Moscow, 1968. 120 p. 300 copies printed.

No contributors mentioned.

PURPOSE: This booklet is intended for mathematicians, linguists, and computer designers concerned with machine translation.

COVERAGE: This booklet contains papers on problems in machine translation which were originally submitted to the Conference on Machine Translation, May 15-21, 1958, by the Linguistic Research Group of the Institute of Precision Mechanics and Computing Techniques, Academy of Sciences, USSR. The first article constitutes a general statement on the nature of machine translation. Subsequent articles deal with specific problems of machine translating of Japanese, Chinese, German, and English into Russian. No personalities are mentioned. References accompany individual articles.

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Collection of Articles (Cont.)

SOV/3119

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SOV/3119

• Yefimov, M.B. Certain Problems of Machine Translation of Japanese Into Russian

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• AVAILABLE: Library of Congress (FN 242 .K6)

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BELOKRINITSKAYA, S. S.

PHASE I BOOK EXPLOITATION

SOV/6100

Akademiya nauk SSSR. Institut tochnoy mekhaniki i vychislitel'noy tekhniki.

Trudy (Academy of Sciences of the USSR, Institute of Precision Mechanics and Computer Technology. Transactions) no. 2. Moscow, 1961. 447 p. 1000 copies printed. Contributors not mentioned.

PURPOSE: This collection of articles is intended for scientific and technical personnel concerned with machine translation and computer technology.

COVERAGE: This collection of articles of the Institute of Precision Mechanics and Computer Technology, Academy of Sciences USSR, is the second in a series concerned with machine translation and mathematical linguistics. The collection contains reports written by members of the Machine-Translation Group of the Institute as well as reports by researchers from other organizations. The articles deal with various problems in machine translation, such as the possibility of an intermediate language, relationships between various languages, systems of recording, structure of

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## Academy of Sciences (Cont.)

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algorithms, methods of independent analysis of a number of languages (Chinese, German, English, Russian, Rumanian, Swedish, Tartar, etc.), independent synthesis of the Russian language, some problems of binary Japanese-Russian and Chinese-Russian translation, theoretical translation problems, and problems associated with automatic recognition of speech elements and the introduction of written texts. No personalities are mentioned. There are 11 references: 2 Soviet and 9 English.

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